

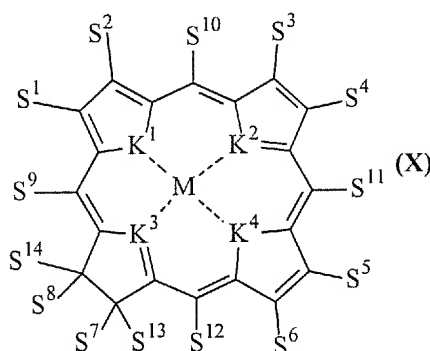
Amendments to the Claims :

This listing of the claims will replace all prior versions and listings of claims in the present application:

Listing of Claims :

1-22 (cancelled)

23 (currently amended). A *trans* substituted oxochlorin compound of Formula X:



wherein:

M is a metal selected from the group consisting of Zn, Mg, Pt, Pd, Sn and Al, or M is absent;

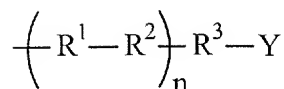
K¹, K², K³, and K⁴ are hetero atoms independently selected from the group consisting of N, O, S, Se, Te, and CH;

S¹, S², S³, S⁴, S⁵, S⁶, S⁸, S⁹, S¹⁰, S¹¹, S¹², and S¹⁴ are independently selected from the group consisting of H, aryl, alkyl, cycloalkyl, spiroalkyl, alkenyl, alkynyl, halogen, alkoxy, alkylthio, perfluoroalkyl, perfluoroaryl, pyridyl, cyano, thiocyanato, nitro, amino, alkylamino, acyl, sulfoxyl, sulfonyl, imido, amido, and carbamoyl;

wherein S⁷ and S¹³ are together =O;

and wherein either (i) S¹ and S⁵ are *trans*-substituted linking groups Q¹ and Q², (ii) S² and S⁶ are *trans*-substituted linking groups Q¹ and Q², (iii) S¹⁰ and S¹² are *trans*-substituted linking groups Q¹ and Q², or (iv) S⁹ and S¹¹ are *trans*-substituted linking groups Q¹ and Q²; and

Q¹ and Q² are independently selected linking groups of the formula:



wherein:

n is from 0 or 1 to 5 or 10;

R³ may be present or absent;

R¹, R², and R³ are each independently selected from the group consisting of ethene, ethyne, aryl, and heteroaryl groups, which aryl and heteroaryl groups may be unsubstituted or substituted one or more times with H, aryl, phenyl, cycloalkyl, alkyl, alkenyl, alkynyl, halogen, alkoxy, alkylthio, perfluoroalkyl, perfluoroaryl, pyridyl, cyano, thiocyanato, nitro, amino, alkylamino, acyl, sulfoxyl, sulfonyl, imido, amido, and carbamoyl; and

Y is a protected or unprotected reactive substituent selected from the group consisting of hydroxy, thio, seleno, telluro, ester, carboxylic acid, boronic acid, phenol, silane, sulfonic acid, phosphonic acid, alkylthiol, formyl, halo, alkenyl, alkynyl, haloalkyl, dialkyl phosphonate, alkyl sulfonate, acetylacetone, and dialkyl boronate groups.

24 (original). The compound according to claim 23, wherein S⁹ and S¹¹ are *trans*-substituted linking groups Q¹ and Q².

25 (original). The compound according to claim 23, wherein S¹⁰ and S¹² are *trans*-substituted linking groups Q¹ and Q².

26 (original). The compound according to claim 23, wherein neither S⁸ nor S¹⁴ is H.

27 (cancelled). ~~The compound according to claim 23, wherein M is present.~~

28 (original). The compound according to claim 23, wherein M is Zn or Mg.

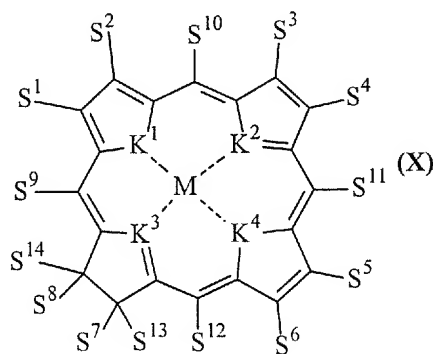
29 (cancelled).

30 (original). The compound according to claim 23, wherein K¹, K², K³, and K⁴ are independently selected from the group consisting of N, O, S, and CH.

31 (original). The compound according to claim 23, wherein K^1 , K^2 , K^3 , and K^4 are all N.

32 (previously presented). The compound according to claim 23, wherein S^4 , S^8 , S^9 , S^{10} , S^{11} , S^{12} , and S^{14} are all alkyl.

33. (currently amended). A *trans* substituted oxochlorin compound of Formula X:



wherein:

M is absent;

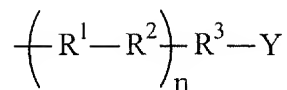
K^1 , K^2 , K^3 , and K^4 are hetero atoms independently selected from the group consisting of N, O, S, Se, Te, and CH;

S^1 , S^2 , S^3 , S^4 , S^5 , S^6 , S^8 , S^9 , S^{10} , S^{11} , S^{12} , and S^{14} are independently selected from the group consisting of H, aryl, alkyl, cycloalkyl, spiroalkyl, alkenyl, alkynyl, halogen, alkoxy, alkylthio, perfluoroalkyl, perfluoroaryl, pyridyl, cyano, thiocyanato, nitro, amino, alkylamino, acyl, sulfoxyl, sulfonyl, imido, amido, and carbamoyl;

wherein S^7 and S^{13} are together =O;

and wherein either (i) S^1 and S^5 are *trans*-substituted linking groups Q^1 and Q^2 , (ii) S^2 and S^6 are *trans*-substituted linking groups Q^1 and Q^2 , (iii) S^{10} and S^{12} are *trans*-substituted linking groups Q^1 and Q^2 , or (iv) S^9 and S^{11} are *trans*-substituted linking groups Q^1 and Q^2 ; and

Q^1 and Q^2 are independently selected linking groups of the formula:



wherein:

n is from 0 or 1 to 5 or 10;

R³ may be present or absent;

R¹, R², and R³ are each independently selected from the group consisting of ethene, ethyne, aryl, and heteroaryl groups, which aryl and heteroaryl groups may be unsubstituted or substituted one or more times with H, aryl, phenyl, cycloalkyl, alkyl, alkenyl, alkynyl, halogen, alkoxy, alkylthio, perfluoroalkyl, perfluoroaryl, pyridyl, cyano, thiocyanato, nitro, amino, alkylamino, acyl, sulfoxyl, sulfonyl, imido, amido, and carbamoyl; and

Y is a protected or unprotected reactive substituent selected from the group consisting of hydroxy, thio, seleno, telluro, ester, carboxylic acid, boronic acid, phenol, silane, sulfonic acid, phosphonic acid, alkylthiol, formyl, halo, alkenyl, alkynyl, haloalkyl, dialkyl phosphonate, alkyl sulfonate, acetylacetone, and dialkyl boronate groups.

34 (previously presented). The compound according to claim 33, wherein S⁹ and S¹¹ are *trans*-substituted linking groups Q¹ and Q².

35 (previously presented). The compound according to claim 33, wherein S¹⁰ and S¹² are *trans*-substituted linking groups Q¹ and Q².

36 (previously presented). The compound according to claim 33, wherein neither S⁸ nor S¹⁴ is H.

37 (previously presented). The compound according to claim 23, wherein K¹, K², K³, and K⁴ are independently selected from the group consisting of N, O, S, and CH.

38 (previously presented). The compound according to claim 23, wherein K¹, K², K³, and K⁴ are all N.

39 (currently amended). The compound according to claim 23, wherein S⁴, S⁸, S⁹, S¹⁰, S¹¹, S¹², and S¹⁴ are all alkyl.